TANNING MOOSEHIDES

the Northern Saskatchewan Trapline Way

An Easy Step-by-Step Guide

Tommy Bird
Lawrence Adam
Lena Adam
with **MIRIAM KÖRNER**

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YNWP
REGINA, SK

For the future generation of knowledge keepers,
in honour of the knowledge keepers of the past.

Tanning Moosehides the Northern Saskatchewan Trapline Way: An Easy Step-by-Step Guide

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CREATIVE SASKATCHEWAN

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Introduction

Tanning moosehides is a skill passed down from generation to generation since time immemorial. Tanned hides were sewn into mukluks, moccasins, mitts, vests, jackets, pants, tent coverings, dog harnesses, toboggan bags, bedding, snowshoe straps, laces and a lot of other day-to-day items. Today, they are often made into beaded purses or credit card holders, earrings, and dress clothes for special events. Beaded outfits made of moosehide are shown off at Queen and King Trapper events during winter festivals.

Hides in stretcher frames at the Adams' trapline cabin.

Moosehides are heavy, and the process of fleshing, scraping, and tanning is time-consuming. For this reason, hides are often processed in gatherings. The best way to learn how to tan hides is to visit one of the many hide camps, where people gather to share their skills.

In the past, when Woodland Cree families lived on remote traplines, everyone had to pitch in. Tommy Bird of Peter Ballantyne Cree Nation remembers tanning hides with his family when he was a young boy, learning from his Elders. The last moosehide he tanned at his family's trapline was forty years ago.

Residential Schools, the Sixties Scoop, and relocations to permanent settlements disrupted the passing on of traditional knowledge in many northern communities. Moccasins and mukluks were replaced by commercially available footwear, and leather straps were replaced by nylon ropes. Tommy has held on to some of the traditional skills such as trapping, fishing, dog-mushing, hunting, and gathering. He is also relearning some of the forgotten skills from Elders who still carry the knowledge. Tanning moosehides is one of them. Tommy, along with many others, is bringing back the traditional knowledge of tanning moosehides, so that the youth of today can once more pass this knowledge on to the next generation.

Relearning the old skills requires time and the chance to improve on mistakes. Culture camps are a good way to receive knowledge from Elders, but youth often get only a snapshot

of the process and miss important steps. And while the process of tanning hides is available on the internet, it often lacks the detail that allows a person new to the skill to understand if they are doing it right or if they are ready to move on to the next step: *How much do I have to scrape off the hair side? How can I tell if I'm done? How do I make brain soup?*

Elders Lawrence and Lena Adam of Fond du Lac Denesųłiné First Nation have decades of experience tanning hides and sharing their knowledge. Lena is also an expert in making gauntlets, moccasins, and mukluks from home-tanned hides, and is an exceptional beadwork artist. For the last few years, Lawrence, Lena, and Tommy have worked together in Tommy's backyard, tanning more than thirty hides from start to finish, and smoking more than a hundred that had been softened in tanneries.

Lena Adam arranging her beautiful moosehide wares.

This handbook is the result of their learning with and from each other. It combines traditional knowledge, detailed photos, and tips on how to tan moosehides with both traditional tools and modern technology.

There are many ways to tan hides. This is just one. You will have to find your own way, and you won't find it by reading this book alone. It takes time and many mentors to guide you along the way. Use the notes sections to keep track of what works best for you. Nobody learns to play the piano by reading books alone—you must practise, practise, practise.

We hope this guide will help you to troubleshoot and avoid common mistakes, and that it will be something you can come back to again and again to refresh your memory when you're working in your own backyard.

Materials:

With the exception of tools, most of the materials you will already have at home or they are readily available in stores or the bush. You will need:

- Moosehide
- Moose brain (*for a substitute, see p. 34*)
- A small pot to cook the brain mix in
- 2×4s *or* round peeled logs
- Rope
- Tarps
- Rotten, dried wood
- Oatmeal
- Sunlight liquid dish soap and/or bar soap
- Heavy cotton denim or canvas *(a few pairs of old jeans will work)*
- Knife
- Scraping, fleshing, and sharpening tools (*see next section*)

OPTIONAL

- Top-loading washing machine
- Spinner
- Fabric softener, such as Downy
- Sunflower lecithin (powdered)
- Common salt
- Sawdust
- Spruce cones
- Sheep shears or electric sheep clippers
- Grinder
- Tin snips
- Hide relaxer

Tools:

Knowing what tool to use and when to use it will save you time and hard labour.

Bone scrapers are used to flesh the hide. They are usually made from the leg bones of moose, elk, deer, or bear. Use the back leg-bone right above the hoof for the deer family, and the bone below the hips for bears. Back leg-bones are tougher than front legs, and a bear's leg-bones make sharper scrapers than the ones from the deer family. To make your own scraper:

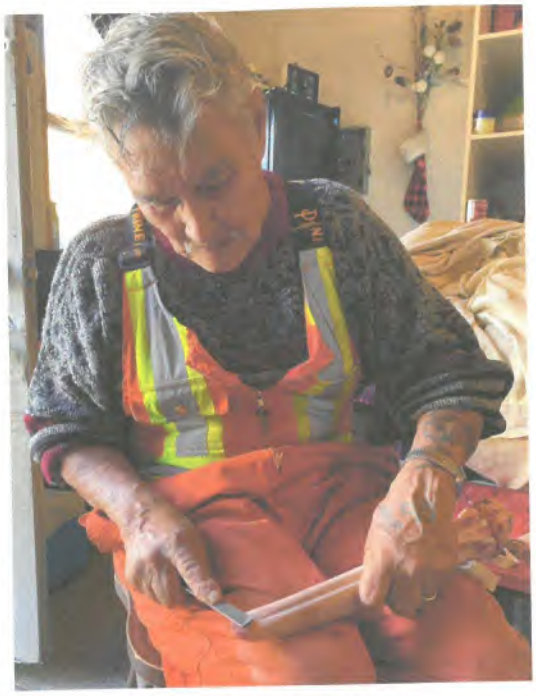
1. Cut the bone on a 20°–30° angle on one end, and file to sharpen it.
2. Cut short slots (teeth) into the tip with a fine-bladed hacksaw. Leave the bone marrow in, or—if you scraped the marrow out—dribble cooking oil or bear grease into the marrow cavity.
3. Attach a leather string with a loop to support your wrist when you hold the tool.

TIP: STORING TOOLS

Wrap the end of the bone scraper in a cloth soaked with cooking oil or bear grease to stop it from turning brittle and breaking when you store it.

Bone scrapers used for fleshing. Note the fine teeth cut into the bone on the far right scraper.

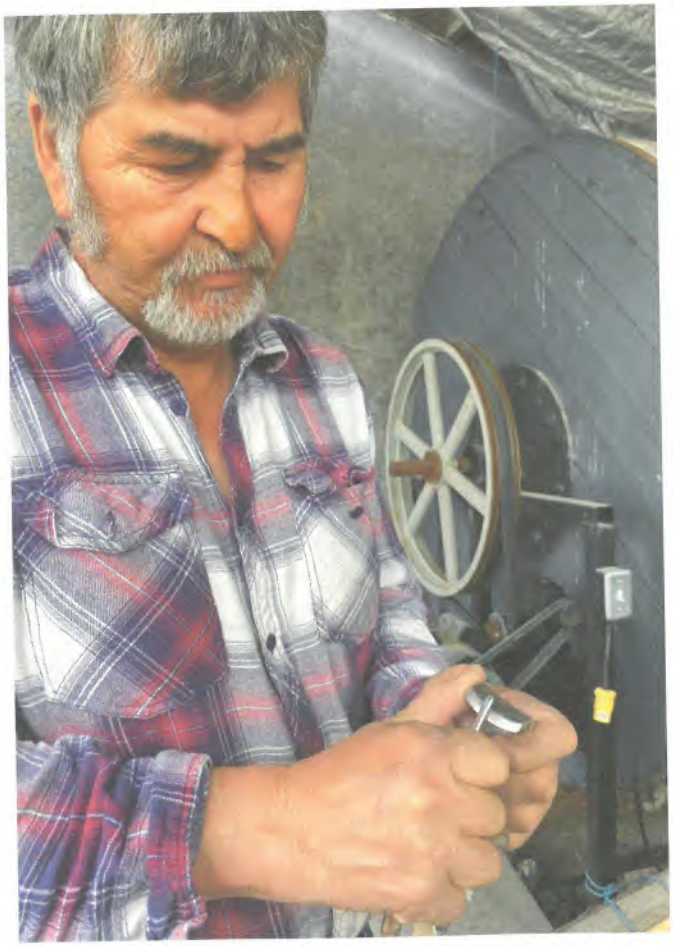
Sharpened willow sticks are used while the bone is still fresh to open up a channel to slide the leather strings through.



Lawrence sharpening the end of a new bone scraper with a file.

Metal scrapers are used to scrape the hair side. Start with narrow, round blades, and go wider to even out the hide. The photo (*opposite*) shows the tools that we use to scrape the hair side, starting with the tools on the left, and ending with the ones on the right. You can use skidoo springs, axe-heads, old files, any metal that can be sharpened. Ask a welder or metal shop to grind a sharp edge or—if you're lucky—buy a finished tool from an experienced hide tanner.

The most important thing is to keep the blades sharp. Blades with soft steel can easily be sharpened with another piece of steel. Don't let your blade go dull. Sharpen it often. It will save both your time and your wrists!



Tommy sharpening a scraper with a piece of steel.

Always follow the angle of the blade.

Scrapers with metal blades and sharpening tools used for scraping the hair side, shown in order of use (*left to right*). Stove legs (*far right*) are used for softening the hide in one of the last steps.

Sometimes you won't do more than a dozen strokes on the hide before having to sharpen the blade again. A piece of a skidoo rod (*above, far left*) can be used to sharpen tools while they still have a good edge, but any kind of steel will work. Files or sharpening stones are used when the blades have lost their edge and are getting dull.

NOTES:

Tanning Moosehides Step by Step:

STEP 1: SKIN THE MOOSE

Traditionally, July is the best time to harvest a bull to turn into hide. During the summer months (June to August), the hide is not as thick. From October to December, the hide is tougher to work on. The cooler temperatures and the tough skin of the animal during rut thickens the hide and makes working it more difficult. Older bulls generally have thicker and tougher skin than younger bulls. If you're hunting in late fall, a three- to four-year-old bull is the preferred age, according to Lawrence. The bull is not huge at this stage, and the hide is easier to work on.

Knife marks will leave deep gouges in the hide.

1. Skin the moose with your knife moving away from the hide towards the meat, so that if you slip, you don't cut into the hide.

2. After skinning the moose, cut the legs and neck off the hide to give it a nice, even shape. Cutting the meat off the neck area will make the hide lighter to carry.

TIP: AVOIDING KNIFE MARKS

Be careful not to make butcher-knife marks. They will make the hide harder to work with later, and the hide will easily get holes if the marks are too deep.

NOTES:

STEP 2: GIVE THE HIDE A HAIRCUT

While still in the bush, hang the hide over a vertical pole (like a cut-off tree) or over a horizontal pole tied between two trees. Trim the hair with a knife to make the hide lighter and easier to scrape later. If you are able to bring it home, you can also use electric sheep shears.

Tommy trimming the hair with a knife.

TIP: STORING THE HIDE

After the hair has been trimmed off the hide in **Step 2**, you can store the moosehide in a freezer or preserve it with salt if you don't have time to keep working on it. To salt the hide for storage, cover the hide with ¼" of common salt. ***Don't use iodized salt.*** Fold the hide hair side out for storage. Store it in a dry place, but ***don't use a plastic container***—your hide might get mouldy!

Use common salt to preserve the hide for storage.

Fold the hide hair side out for storage.

NOTES:

STEP 3: SOAK THE HIDE

Soak the hide for 4–5 days in clean water. The hide will absorb the water, making it thicker and easier to flesh. Change the water daily to avoid bacteria and rot. If the hide is very dry, it might need another day of soaking.

If you are in a hurry and the hide is still fresh (it hasn't been frozen or salted), 2 days of soaking might be enough. Use warm water if you want to speed up the process, and change the water every few hours.

TIP: PREVENT FLOATING

You may have to put a rock on the hide to keep it under water. ***Wash the rock first!*** Sand and dirt can be difficult to remove.

Moosehide soaking in tub before fleshing.

TIP: OPTIONAL SOFTENING WITH RELAXER

To help soften the hide, add **250 ml of hide relaxer per 5 gallons of water** (**Step 3** and/or **Step 15**). Hide relaxer is available from commercial tanneries and taxidermies.

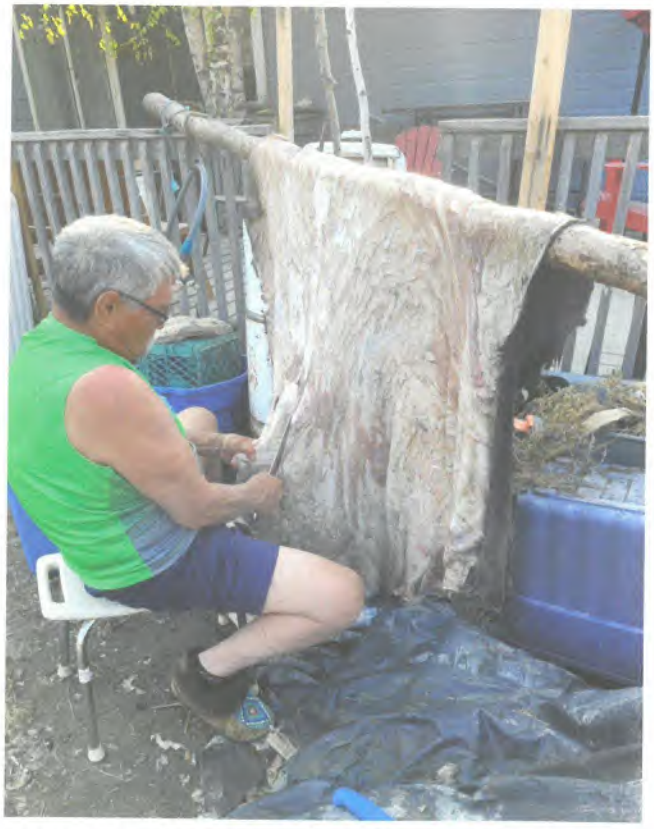
NOTES:

STEP 4: CUT HOLES IN THE HIDE

If you didn't trim off the legs and neck in **Step 1**, now is the time. Trim the hide into an even shape. We cut the necks and legs off, so that when stretching it, the hide stays smooth and is easier to scrape.

1. Using a knife, cut short slits in the hide about 4–5″ apart, and about 1″ from the edge. If the hide is bigger, 6–7″ will do. The holes should be big enough to fit a rope easily through, but not much bigger. The holes will widen as you tighten the hide on the frame.

2. While you're cutting holes, trim some of the meat and fat off the flesh side to make it easier to move the hide.



Lawrence cutting holes in the hide in Tommy's backyard.

NOTES:

Lena cutting holes and trimming meat off the hide at a culture camp where she is sharing her skills.

Round poles and 2×4s used for frame-building.

STEP 5: BUILD THE FRAME

Use four round logs with a 4" diameter to build the frame. The larger the moose, the bigger the frame. A big moose will fill a 10'×11' frame.

Use seasoned (dry) wood. Green wood bounces and bends easily. You can also use doubled 2×4s to build a frame.

Reinforce all four corners, so the frame won't warp and stays rectangular. It needs to be strong enough that people can sit down on it.

NOTES:

STEP 6: STRETCH THE HIDE

1. Lay a clean tarp on the ground under the frame. Lay a pole across the middle of the frame. This pole will be your helper. Moosehides are very heavy when waterlogged, and the pole will hold the hide up while you tie it (*right, top*).

2. Place the moosehide on top of the pole with the flesh side up.

3. Use short pieces of rope to tie the neck and bottom to the frame first, then the four corners, then the middle (*right, bottom*).

4. With a long piece of rope, thread through all the holes, making your way around the hide. The rope goes over the pole, under the hide, through the hole, over and around the pole.

Make sure to keep the same pattern or it will be difficult to tighten the rope later. *Over, under, over, under...*

5. Remove the helper pole and tighten the rope. The hide should be very tight and have no ripples (*see p. 18*).

6. Stand the hide up or raise it off the ground, however you prefer to work.

7. You can tie the helper pole to the front now, if you would rather sit on it while fleshing.

Hide lying on the "helper" pole.

Neck, bottom, and four corners tied with short rope.

Hide stretched evenly on the frame.

STEP 7: FLESH THE HIDE

Make sure the hide is free of dirt. Wash it with clean water if necessary. Use the bone tools to flesh the hide. Make sure all flesh and the fine layer that attaches the flesh to the hide (we call it membrane) is taken off. Take the flesh and the membrane off in one go, if you can. If you leave it too long, you will have to take the hide down and soak it again.

1. Start with the neck (the hardest part) and go across the hide. Work your way back and forth. The weight of the flesh pulling down will help to lift the membrane slightly and make it easier to remove the flesh evenly together with the membrane (*below*).

Lightly pulling on the scraped-off flesh will lift the membrane and make fleshing easier.

Lawrence fleshing the hide. Note the angle of the bone scraper.

2. Find the right angle to hit the hide and take the flesh and membrane off. Hold one hand against the hide as you flesh with the other hand so your scraper won't bounce (*above*). It doesn't matter how hard you hit it when fleshing—you won't punch a hole in it.

3. If possible, keep working until the flesh side is done, so the flesh won't dry and you won't need to re-soak it. Keep wetting it with a wet cloth if needed. On a hot day, keep a tarp on the area of hide you are not working on to keep it moist. With a bit of experience, this step should take 3–4 hours for an average-sized hide.

Veins on the flesh side. Note the difference between the finished job (large area) and the area around the holes where the membrane still has to come off.

Keep the teeth sharp and clean off the flesh.

Every few strikes, clean out the flesh from the teeth of your bone tool.

Be careful around knife marks so you don't accidentally make a hole. Always scrape parallel to the cut marks. If you can see the veins on the hide (*see p. 21*), you know you've done a good job and are ready to move on to the next step.

TIP: TAKING BREAKS

If you are taking a break or it's raining, ***make sure to cover the hide with a tarp***, leaving a bit of airspace between it and the hide. You want to keep some moisture in the hide, but you don't want it wet. If you're leaving the hide unattended and don't want the dogs to chew it, you can use two poles with tree branches that form a Y to hook the frame onto and lift it higher.

NOTES:

STEP 8: WASH THE HIDE

Wash the hide with water and a wet sponge or with a garden hose to remove any bloodstains. If it is stained a lot, use Sunlight dish soap to clean the bloodstains. You can leave the hide on the frame for this step.

NOTES:

STEP 9: FLIP THE FRAME

1. Turn the frame over to the hair side.
2. Wait until the hide is almost dry. That will make it easier to scrape the hair side and stop you from cutting through the hide.

How long it takes for the hide to dry will depend on the weather and if the hair was cut or not. It will usually need to be left overnight or even longer.

TIP: SPEEDING UP THE DRYING PROCESS

If the weather is cool and damp, you can build a fire in front of the frame and use the branches of a spruce tree to rub the hair dry with the smoke.

NOTES:

Dry and ready to scrape off the hair. Note that this hide has been trimmed with sheep shears. The light area shows where some hair has been scraped already.

STEP 10: SCRAPE THE HAIR SIDE

You will spend a lot of time on this part. It's important to get it right or you will have to go back to this step again later. First remove the hair, then the layers under the hair. We call it membrane as well. That means you are scraping more than once.

If you don't remove the membrane, your hide will not soften later and you won't get a needle through. So this is the most critical part.

Narrow-bladed tool made from a piece of metal once part of a semi mudflap that Lena found on the road.

A tool made from an old file that was first bent and then sharpened on a metal grinder.

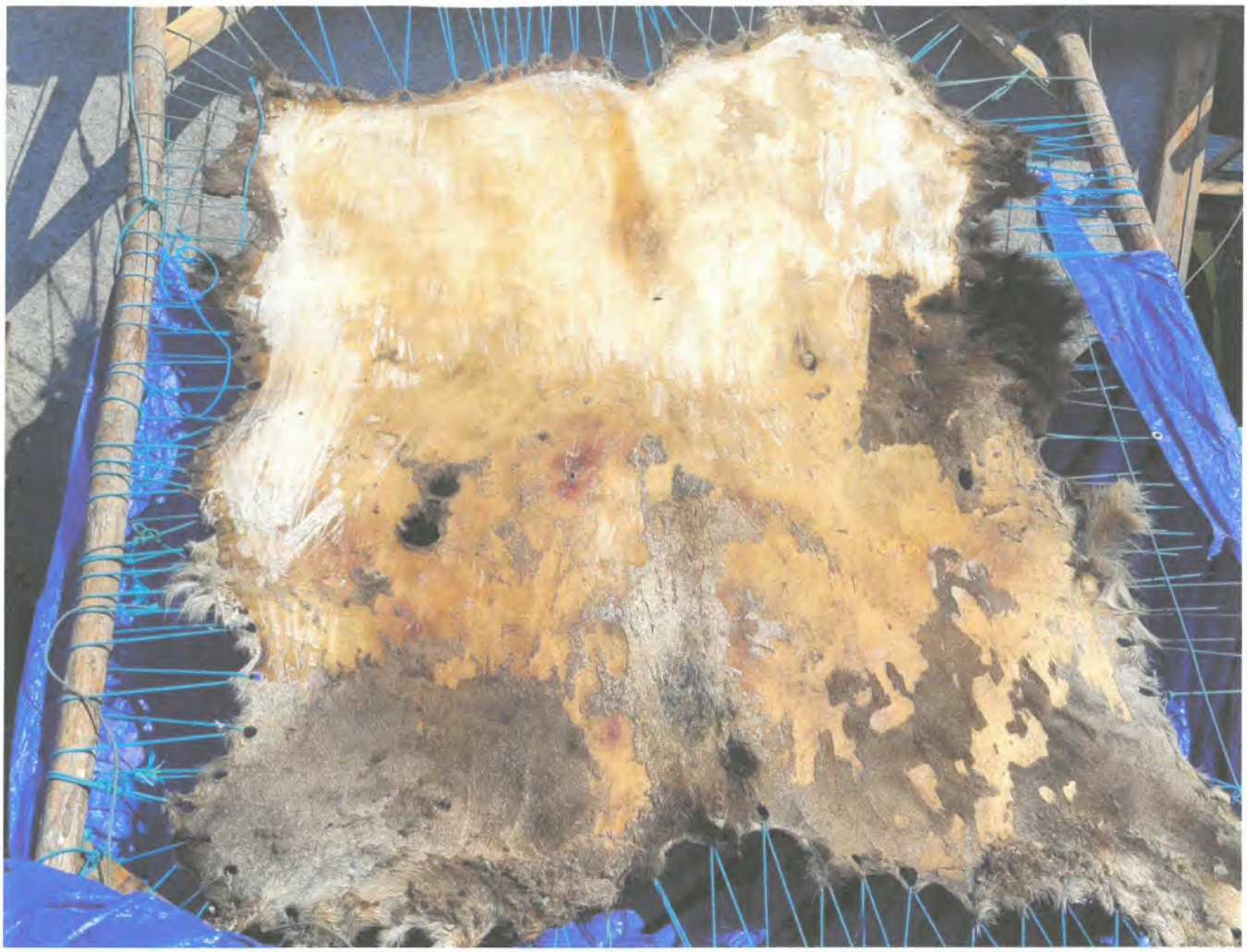
1. Start on the toughest parts. Work on the neck first, about a foot from the edge of the hide, and go ¾ of the way down to the rear.

2. Then do the hip part. If you do the neck and the hip sections first, the rest of your hide will be easier to work on.

3. Now scrape the remaining hide in quarter sections.

Use a smooth motion, easing into the hide, then use lots of pressure and ease off again. Or as Tommy once heard an Elder say after a helper ripped a hole into her moosehide: "It's like when you're done your business on the toilet. One smooth movement."

4. Keep your scraper parallel for the first scraping. Water the hide if it gets too dry. A damp hide is easier to scrape.



Hide in progress. Note the darker patch along the neck (*above, centre*). The hide is thickest here and requires a lot of scraping. Lighter areas show where the hide is getting closer to the finished stage.

5. Scrape all the hair off using very sharp tools. It's best to start with narrow-bladed tools for taking the hair off (*see p. 26*).

You can apply a lot of pressure when you are taking the hair off the hide—you won't cut through it easily. *But don't hit the hide!*

6. Once the hair is off, keep scraping down to the grain. Use wider and wider tools to scrape past the hair layer and outer skin until you no longer see black hair follicles.

Change direction often, so the hide will be smooth.

Lawrence scraping layers off after the hair has been removed. Note the big curly scrapings coming off.

7. Use your widest tool with a flat blade to smooth out any tool marks from previous scrapings.

TIP: HIDE TOO DRY OR TOO WET?

If the hide gets too dry, keep wetting it with a rag and rub it in with your hand. If your scraper slips, the hide is too wet. Wait for it to dry out a bit before continuing.

HOW TO TELL WHEN THE SCRAPING IS DONE

You are scraping through two layers of skin after the hair has been removed. How do you know when you're done? Here are the telltale signs:

- If you can see veins on either side of the hide, the scraping is almost done (*below*).
- You don't want to see any pink or purple. When you're done, the hide is very light-coloured. If you're not sure, use a wet cloth. The cloth is your friend. If you can't see the areas that need more scraping when the hide is dry, a wet cloth will help bring out the contrasts (*p. 30, top*).
- The scrapings should be paper-thin and crumple easily, almost like silt (*p. 30, bottom*).

Note the veins starting to show on the flesh side. This means you are getting close to being finished scraping.

Wet hide on the hair side, showing a white streak where the hide is ready and the darker coloured hide where hair follicles are still visible.

Left: Scrapings are flaky and stay together: the hide needs more scraping. *Right:* Scrapings are brittle—the hide is almost done.

When the scrapings crumble easily into dust, the hide is ready for the next stage.

Tommy and Lawrence pointing at a darker spot in the neck area that still needs a little bit more scraping.

- You can also knock the hide and listen to the sound. If it's a deep booming sound like a drum, you need to keep scraping. If it is a sharp crackling sound like when you knock on paper, it's good. The sound of the scraper sounds lighter too.
- When you press on the hide, there should be some give to it.
- If you look at the hide with the sun behind it, you should see light through it (*above*).
- The hide should have a velvety feel. If it's shiny looking and feels smooth, you have to scrape more (*see p. 32*).

A shiny-looking smooth spot that needs more scraping.

STEP 11: TRIM THE HIDE (IF NEEDED)

You are done scraping? Are you sure? Then it's time to take the hide off the frame and trim it. Some people scrape their hides right to the edge and leave the holes in the hide. The holes can be helpful if you are stretching and pulling the hide on your own later.

If you left hair on the hide or it has hard edges, trim the hide with a sharp knife. Be careful, because the knife can slip easily. You can use tin snips for this step. They are easier to control.

Tin snips to trim the hide.

NOTES:

STEP 12: MAKE BRAIN SOUP

A moose's brain is big enough to tan its own hide.

1. Boil the brain in a gallon of water, give or take, depending on the brain's size. This will be enough to brain both sides of the hide. If you only want to brain one side, use less water.

2. When the brain soup has cooled to lukewarm, add ½ bar of grated Sunlight bar soap or dish soap. A cheese grater works great for grating the bar soap.

3. Add about ¼ cup of grease. Not too much, or your hide will catch on fire easily!

BRAIN SOUP RECIPE

- 1 brain
- 1 gallon of water (or less)
- ½ bar of grated Sunlight soap
- ¼ cup of grease or lard

Brain soup mix.

ALTERNATE TANNING RECIPE #1

There is more than one way to make a tanning solution. Some use rotten suckers (fish), some use just oatmeal and grease. If we don't have the moose's brain, we use the above recipe and substitute the brain with 2–3 cups of oatmeal (about 500 grams). No need to boil: just soaking in warm water will do. This works well for us. (*See p. 47 for a sunflower lecithin-based recipe*).

Oatmeal-based mix.

NOTES:

STEP 13: BRAIN THE HIDE

Lay the moosehide on a clean tarp or table, and rub the mix into the hide with your hands using rubber gloves. Rub the mix evenly onto both sides.

Lena and Lawrence applying the brain mix to the hide.

NOTES:

STEP 14: FIRST SMOKE

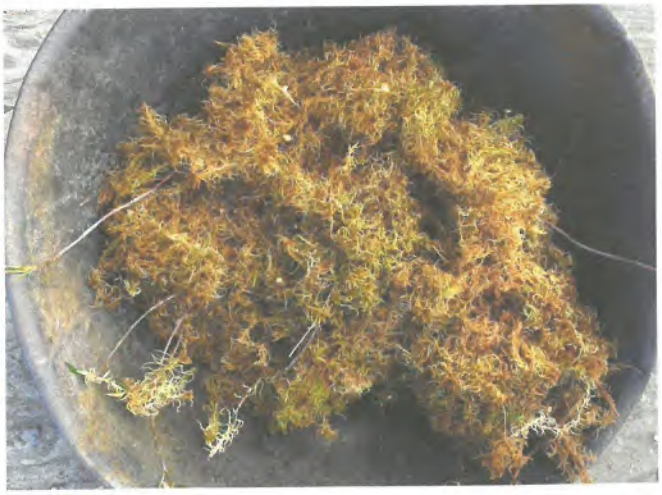
The first smoke helps the brain soup penetrate the hide. For the first smoke we use a mix of:

- **Rotten wood** (it has to be dry and crumble in your hand). For the first smoke, we use any kind of rotten wood, except poplar.
- **Spruce cones** (they have to be dry and no sap in them)
- **Red moss** (the red *Sphagnum* moss found in muskegs)

Punky spruce wood as found in the forest. Note that it needs to be dried before use.

Any large pieces of wood that don't crumble are removed, so the mix won't catch on fire.

Spruce cones



Dried red *Sphagnum* moss

TIP: LETTING THE SUN DO THE WORK

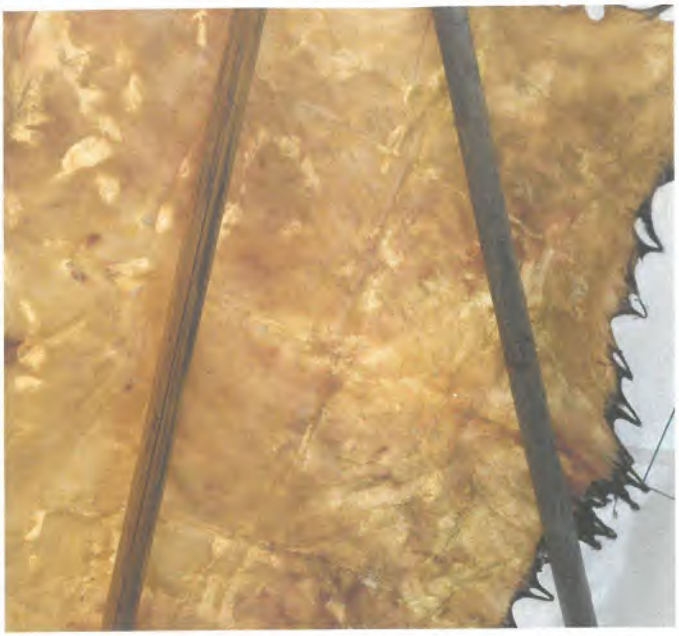
If it is hot and sunny, you can let the sun do the warming for you and let the brain mix soak in over a few days.

A smokehouse can be used to smoke the hide.

1. If you have access to a smokehouse, it's a good way to smoke your hide. If not, build a simple, tarp-covered tipi for the first smoke.

2. Put the hide with the brain mix over a smoky fire. You want only smoke—no flames (*see p. 57 for tips on smoky fires*).

3. Keep the fire (smoke) going overnight or for at least 5–6 hours. Use the red moss from muskegs (*Sphagnum* moss) to keep flames down.



A simple, tarp-covered tipi used for the first smoke. Keep airspace between the hide and poles, or move the hide around frequently so the poles don't block the smoke.

After this step, you could take a break and store the hide. Hanging it in a dry shed will work well. Your hide is now at the rawhide stage.

NOTES:

STEP 15: SOAK THE HIDE

Soak the hide in warm water overnight or longer. There is no real time frame on this. The hide will expand. It is done soaking when it is soft like a wet towel.

Folding the hide to fit into the tub.

Adding water to soak the hide.

Soaking the hide, which softens as it absorbs water.

Putting the hide in a top-loading washing machine with a fabric softener like Downy will speed the process.

Soaked hides hanging like wet towels.

STEP 16: WRING THE HIDE

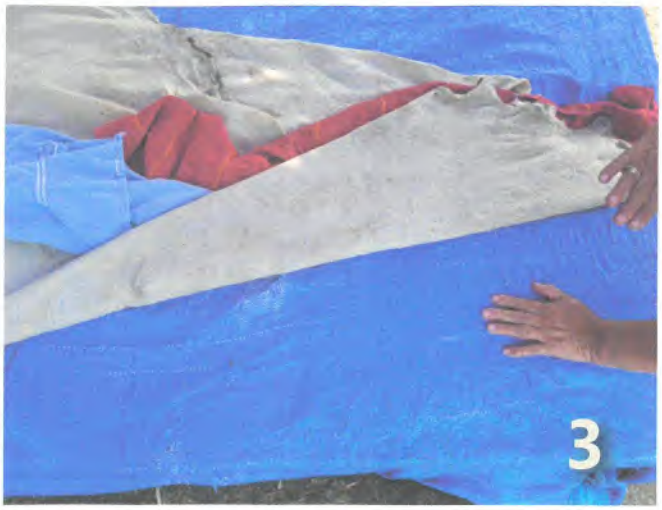
There is more than one way to do this step. Here, we use two poles to wring out the hide.

1. Lay the hide on a clean tarp. Put a towel on either side of the hide, make a loop, and then roll the hide with the towel ends inside. The towel holds the hide together and makes it less slippery around the pole (*see pp. 40–41, photos 1–6*). You could also use a piece of string to tie the ends.

2. Put the hide around a pole, slip a second pole through the towel loops, and twist until the water is squeezed out of the hide (*see pp. 41–42, photos 7–10*).

Lay the wet hide out flat on a clean tarp.

Lay two towels bunched lengthwise down the centre of the hide, one on each end.



Fold the hide over the two towels.

Twist the hide around the towels.

Fold the twisted hide on both ends to form a loop on each side.

Tuck the ends into the folds of the hide, making a loop on each side. Or use a piece of string to tie the ends closed.

Slide a pole into one of the looped ends.

Slide a pole into the second looped end.

Use the second pole as a tool to twist the hide and wring out the water.

Continuing to twist, wind the hide towards the first pole.

3. Wring until no water comes out, then re-roll the hide with the towels wrapped inside from the other direction until all parts of the hide are wrung.

Wring the hide with a tarp under it in case it slips. You don't want the hide to get dirty.

HAS THE HIDE BEEN SCRAPED ENOUGH?

- If the water is bubbly and coming out of the hide (instead of being trapped inside), it means that the brain mix has penetrated, and the membrane and skin layers that needed to be removed have been scraped off. Good job! The hide is ready for the next step.
- If the hide has air pockets (balloons), then you'll have to stretch the hide again and scrape more off. Go back to **Step 10.** But don't despair—it's just more work. Your hide can still turn out beautiful. If there are just a few spots that need more work, you can deal with it during the softening step.

Water is squeezing through the hide, and no air or water is trapped inside—this hide is good to go.

NOTES:

Tommy using a fixed pole (*top beam*) and a movable pole (*bottom pole*) to squeeze the hide on his own.

OTHER WAYS TO WRING

You can make a frame with a fixed pole and use a second pole to squeeze the hide out on your own (*above*). Or you can also use an old electric spinner to get the water out of the wet hide (*right*). Spin for 5–10 min.

STEP 17: SQUEEZE OUT MORE WATER & SOFTEN HIDE

You will go back and forth between **Step 17** and **Step 18** at least four times. With the hide hanging over a horizontal pole, use a hide-scraper to first squeeze the water out of the hide and then to soften it. This is critical. You have to scrape until there is no water coming out (and then some).

Go back and forth between this step and the next: *Scrape and stretch, and scrape and stretch, and scrape and stretch, and scrape and stretch.*

1. Scrape every inch of the hide. Hold one hand on the back of the hide while you work with the scraper on the front side, or pull on the hide to keep it tight (*below, right*). You should see a whitish liquid run out. Do both sides of the hide in opposite directions.

2. Remove any membrane you previously missed with scrapers or scissors, or cut off very carefully with a knife (*p. 46*).

The leg of an old tin stove works great for squeezing out the water or you can use the scrapers you used for fleshing.

TIP: WATCHING THE WEATHER

If it is hot and sunny, work in the shade. If it is cool and damp, you can stretch the hide every now and then over the coals of a fire with no flames.

Bits of membrane that still need to be removed.

Remove loose bits of membrane with scissors...

... or a knife.

3. Now stretch the hide (*see* **Step 18**) and let it dry for a little bit, but not too much. Then continue to soften with the scrapers.

This part is critical: If you don't work the hide until it is dry, it will dry too hard. Keep scraping and stretching until the hide is dry—we can't say it often enough.

4. Examine the hide closely. Make sure there is no membrane or flesh left on either side. If there are some spots that are still not soft enough, scrape or grind them until soft. Those spots will need to be treated with tanning solution again. You can use this recipe if you don't have any brain soup left:

ALTERNATE TANNING RECIPE #2

Softener ingredients.

- 1 cup sunflower lecithin (*available at health food stores or larger grocery stores*)
- ¼ cup cooking oil
- ½ bar Sunlight soap or dish soap
- Add warm water until it reaches a soupy consistency

There's no need to re-soak the hide after using this mix. But if you use the brain or oatmeal mix (*see p. 34*), you will need to re-soak the hide again.

NOTES:

Lawrence using a cheese grater to work on spots that need more scraping.

TIP: SMOOTHING A ROUGH HIDE

If the hide is rough, use a cheese grater to soften it. In the past, a tin can with nail holes was used. You can also use an electric grinder with a bristle disc.

Cheese grater with homemade handle.

Lawrence demonstrating how to soften a piece of hide with wire.

OTHER WAYS TO SOFTEN

You can also tie a 9- or 10-gauge wire to a tree and pull the hide back and forth to soften it more, letting the wire break the fibres in the hide (*above*). Or, instead of a wire, you could use the metal banding from packaging. Everyone has a different way of doing things. Do what works best for you.

NOTES:

STEP 18: STRETCH THE HIDE

If you have two people, hold on to the hide on either end and pull to stretch the hide. If you have a clean table, put the hide on the table.

1. Start at the neck and rear. This is the longer side. Pull hard on this side. Move your hands a few inches over, pull and stretch again. Work from the centre outward on both sides. Repeat until the hide is stretched on the neck and rear side.

2. Turn the hide and start on the belly part. Don't pull as hard here. Again, work your way outwards from the middle.

3. Go back and forth between **Step 17** and **Step 18** until the hide is completely dry.

Pulling and stretching the hide from neck to rear (*above*) and from belly to belly (*below*).

If you are on your own, pull downward on the hide on either side of a pole or crossbeam.

STRETCHING HIDES ALONE

If you are on your own, throw the hide over a clean pole or beam tied between two trees and, grabbing both ends of the hide, pull downward and move along the bottom edges of the hide, pulling and stretching.

TIP: TAKING A BREAK

If you run out of daylight or energy, put the hide in a plastic bag and keep it in a cooler. You want to keep the hide in the same condition as when you stopped. ***Don't let it dry without continually stretching and softening or the hide will dry hard.***

NOTES:

STEP 19: SEW THE HIDE(S) TOGETHER

1. Sew the hide into a bag that is **closed at the top** and **open at the bottom**. If you have two hides, sew both together. The sides of the hide should not touch each other, so the smoke can reach the whole hide.

2. Add about 3′–4′ of skirt on the bottom. Canvas or old jeans sewn together work well. Don't use polyester: it will burn too easily. The skirt needs to be big enough to cover your smoking pot or firepit (*see* **Step 20**). The seams should be on the outside or the thread could catch on fire.

3. Cover the bigger holes in your hide so the smoke can't escape out of them. It doesn't have to be airtight—you want to see some smoke escape the hide so you know it's smoking well.

4. Sew ties to the hide on the top, so you can tie it to the smoke-rack.

Sewing the skirt with an old Singer sewing machine (*left*). Hand sewing will work just as well. At this stage, the hide should be soft, and the needle should go through easily. Lena is sewing a piece of damaged hide to the top of the bag (*right*) so the smoke will fill out the bag better. Note that you can see knife gouges on this piece of hide where it was not skinned carefully.

STEP 20: PREPARE THE HIDE SMOKER

Once the skirt has been sewn on, the hide needs to be smoked again.

1. Put a cut-off barrel into the ground. About 10" should stick out above the ground.
2. Insulate the barrel with fireproof material or red muskeg (*Sphagnum*) moss.
3. Drive wooden pegs into the ground around the barrel to keep the skirt away from the firepit. The pegs need to be dry.
4. Build a tripod over the firepit. The poles should be high enough to hang the hide from. We make a star out of sticks, so we can tie the hide out. This way the smoke gets evenly into all areas of the hide.

Cut-off barrel, with split dry wood to start the fire. Note the red moss and fire-proof blanket for insulation.

The smoker frame without the firepit.

NOTES:

Lawrence setting up the smoker. Note the star above his head to the left.

SMALLER SET-UP TO SMOKE ONE HIDE

If you are smoking only one hide at a time or smaller hides, a 5-gallon metal bucket or even a large coffee tin will do as a firepit. If you are out on the land, a fire in a sandy spot will work too. You will still need pegs to keep the skirt away from the heat.

Build a simple tipi frame with three or four poles over your fire. The tipi should be tall enough to tie your hide to so it doesn't touch the ground. It takes longer to smoke the hide with this set-up, but it is also safer.

You can start a fire with clean willow branches, and then, when you have coals, add rotten wood, sawdust, and cones. Keep adding the mix to keep a smouldering fire going without flames.

A smaller set-up for smoking a deerhide inside a tarp-covered tipi. Note the watering can to put out flames.

NOTES:

A good smoking fire with no flames.

STEP 21: START THE FIRE

Have rotten wood ready. White or black spruce, or rotten willow. The wood should crumble in your hand. Make sure it is dry. We also use spruce cones and saw dust for our mix (*see* **Step 14**). Wood and smoke mix must be dry and without sap.

1. Line the inside of the barrel with red moss.
2. Build the fire in the middle of the barrel. Use dry wood. Your fire shouldn't be bigger than 8" in diameter.
3. When the fire is going good, add your smoke mix of rotten wood, spruce cones, and sawdust.
4. Put two logs (about 4" in diameter and 8" long) on top to keep the flames down. *Make sure they don't catch on fire!* If you use the small set-up (*p. 55*), don't add the logs.
5. Have a few buckets or a tub with water ready in case you need to douse flames or your hide catches on fire.

NOTES:

STEP 22: FINAL SMOKE

The hide should not get damp at this stage, so choose a dry day.

1. Hang the moosehide from the star and spread the skirt around the wooden pegs. The bottom of the skirt should be long enough to drape around the pegs. The top of the skirt should be about 8"–12" higher than the top of the barrel—the higher the better as the smoke rises (*opposite*).

2. Tap the hide with a willow stick now and then, so the smoke doesn't get trapped rising the same way and colouring the hide unevenly (*p. 60*).

3. Sit and listen to it! Make sure the logs don't light on fire. Sit and listen to the sound: If the crackling picks up, douse the heat with more punky wood. Feel the hide with your hands every 4–5 minutes. It should be warm but not hot! Always have a bucket of water nearby to douse flames or a skirt on fire.

4. Add more sawdust or rotten wood as needed.

5. Watch the smoke through one of the holes. If it's not strong enough, rearrange the fire. You want to see smoke at all times—but no flames. Be careful not to create steam: your hide will get wet and won't take the smoke.

6. Keep checking regularly now until you have the colour you want. You can cut a hole in the seam to peek through. Close the hole again with clothespins or paperclips (binders).

Checking the colour of the hide through a small hole. You can also open up the seam a little and close it off again with paperclips.

If you are smoking two hides together over a large smoky fire, it should take no more than 45 minutes to 1 hour, depending on the colour you want. A single hide over a smaller fire may take up to 6 or 7 hours or more.

Check the weather. If it's too windy, too hot, too cold—don't do it. The day needs to be calm with no moisture in the air. Be patient. This is when all your labour pays off—but if you don't pay attention, your hide could catch on fire.

Two hides sewn together with a canvas / jeans skirt. Note the sawdust and pine cones.
The white tarp keeps the wind off to keep the flames down.

Lawrence and Tommy keeping an eye on the hide. Tommy is using a stick to bang the hide softly so smoke doesn't get trapped in one part of the hide and cause an uneven coloured tan.

STEP 23: PUT IT IN THE GARBAGE (JUST KIDDING)

When the hide has the colour you want, take it off the smoker.

1. Grab the moosehide with the smoke trapped inside and put it in a garbage bag.
2. After ½ hour, open the bag and check the hide. If it's evenly smoked and you are happy, you're done! If not, let it dry out for a day, then put it back on your smoker.
3. If you want to smoke both sides, resew the hide with the seam-side out and start the process over again.

Tanned hide, with smoke caught inside, cooling in a garbage bag.

NOTES:

STEP 24: SIT BACK AND ADMIRE YOUR WORK

A well-tanned hide should be soft like a fleece blanket. Once you feel comfortable with your hide-tanning skills, don't forget to share your knowledge!

Lena and Lawrence holding up a finished hide.

TIP: SEWING

We usually sew moccasins and wrap-arounds with the flesh side in so the bottoms won't be slippery when we are wearing snowshoes, and so we only smoke the hair side. But if you are making thongs for leather jackets or for wrap-arounds, or want a more evenly coloured hide, you may want to smoke it on both sides.

Moosehide moccasins and beaded badge made by Lena Adam from hide that she, Lawrence, and Tommy processed and tanned.

ABOUT THE AUTHORS

Lena Adam is an Elder from Fond du Lac Denesųłiné First Nation in Saskatchewan who shares her knowledge at youth and culture camps across the province. She has been tanning moosehides all her life, with her late mom and other Elders. In 1970, she did her first moosehide by herself and is still tanning hides today. Lena also sews and creates beadwork.

Lawrence Adam, also from Fond du Lac, has been helping Elders to tan hides since the late sixties. He married Lena in 1974, and the two of them have been doing moosehides together ever since. Lena and Lawrence spent twenty-two winters on their trapline in the barren lands, trapping and fishing commercially. In 1983, they began to share their knowledge in culture camps, passing their skills on to youth. They have been invited to camps as far away as Fort Qu'Appelle, Fort Smith, and Fort Chip. He and Lena say they will continue to tan moosehides for "as long as it takes."

Tommy Bird was born in Southend, Saskatchewan, when it was still a remote community without roads, running water, or electricity. He is a member of Peter Ballantyne Cree Nation and has been immersed in traditional Woodland Cree culture since he was a young boy. He has been trapping, fishing, hunting, gathering, and dog mushing for most of his life. In the last few years, Tommy has been reconnecting to his childhood skills of tanning hides, relearning skills so he can pass them on to youth to keep the traditions going.

Miriam Körner is a writer and illustrator who is better with words than with tanning hides. She has previously collaborated with Elders in her community to create children's books that celebrate Woodland Cree culture and lifestyle, including *When the Trees Crackle with Cold: pīsimwasinahikan* with Bernice Johnson-Laxdal, *When We Had Sled Dogs: ācimowin ohci wanihikīskanāhk* with the late Ida Tremblay, and *Seagull Island: kiyāsko-miniscikos* with Myles H. Charles. Returning to traditional ways of relating to Mother Nature is a reoccurring theme in her art and writing. Originally from Germany, Miriam now lives with her sled dogs near La Ronge, Saskatchewan.

Tanning moosehides is a skill passed down from generation to generation.

Tommy Bird, Miriam Körner, Lena Adam & Lawrence Adam

Denesųłiné Elders Lawrence and Lena Adam have been tanning hides and sharing their knowledge with others for more than four decades. Woodland Cree knowledge carrier Tommy Bird helped his family tan hides on the trapline as a young boy.

Together they share their lifetime of experience to guide a new generation of hide tanners to keep the tradition alive. The trouble-shooting tips and hands-on advice in this book will help you to make your own bone tools and turn raw moosehides into smoke-tanned hides soft enough to sew into mitts or moccasins.

Combining traditional knowledge with easy-to-follow instructions and detailed colour photos, *Tanning Moosehides the Northern Saskatchewan Trapline Way* is a practical guide you will refer to again and again.

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